HEALTH

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PROGRESS OF MEDICINE AND PUBLIC HEALTH IN INDEPENDENT INDIA (1947—1952)

A FORTNIGHT ago we celebrated the fifth anniversary of Indian Independence and so we may now take stock of the progress made during these five years in the fields of Medicine and Public Health. The Report of the Committee appointed by the Union Government in October 1943, for making a survey of the health conditions in India—familiarly known as the Bhore Committee—was made available in August 1947. The Union Government accepting the recommendations contained in that comprehensive and admirable report, resolved to implement them to the extent that the finances of the Government would permit. The farsighted members of this Committee framed their proposals for a National Health Organization in two distinct programmes—a long-term and a short-term one of two five year periods, which if implemented on the lines suggested by that Committee, would provide the nation with a fairly adequate and well-developed medical and public health service, modelled on the lines of the modern practices obtaining in Great Britain and America.

The progress made during the last five years since August 1947, when the report was in the hands of the Government, which coincides also with the inauguration of Independence, cannot by any means considered negligible, though with larger financial aid much more could have been achieved. The salient features of the progress made in the curative, preventive, educational and research fields of medicine will now be briefly considered.

The present organisation of medical research in India is the

result of progressive development extending over nearly 45 years. There are about a dozen Research and Training Institutions in India, all of which have a fairly good record of research achievements. It may however, be stated without fear of contradiction that medical research in India has not been sufficiently well organized or encouraged and that the instinct for research is woefully lacking in the majority of our medical brethren. Unless sufficient encouragement and incentive are forthcoming and until the instruction imparted in our medical colleges is so planned as to create a *flair* for research in atleast some of the students who have an inquiring turn of mind, it will not be possible to create a record for outstanding original researches in the field of medicine, such as we see and hear in the western countries. The newly reorganized Indian Council of Medical Research is an earnest of the desire of our Union Government to supply this want. And the I.C.M.R. is fortunate in having for its secretary a really very able, enthusiastic and well-tried research worker in Dr. C. G. Pandit, who was Director of the King Institute of Preventive Medicine at Guindy, Madras for many years and was responsible then for a great deal of original research work in collaboration with a few other research-minded members of the staff. The WHO and UNICEF are also giving magnificent help for the advancement of research in various medical and public health problems. The progress of professional medical education has also been receiving the attention of both Central and State Governments. During the past five years, some new medical colleges have been started in the various States of the Union and the admission strength has been increased where possible. New medical colleges have been started in Indore, Jaipur, Amritsar, Gwalior, Nagpur, Assam, Poona and Trivandrum. In the Madras State a new medical college will shortly be coming into existence in Mathurai, and the one at Guntur is being improved and expanded. The Union and State Governments are aware of the urgent need not only for more medical men, but also for more trained nurses. The latter need is even greater than the former and every State Government is doing its best in this direction also. Besides the Government institutions, other private institutions like the Christian Medical College at Vellore have also been contributing by their sustained efforts, to provide more nurses, technicians and other anciliary personnel so essential for the successful running of any hospital or medical college. The Union Government has created a Council of Post-graduate medical education to supervise and direct post-graduate studies. This is a long felt want, which has now been supplied.

In the matter of medical relief, which depends entirely on the availability of qualified doctors, nurses, compounders, technicians etc., the governments have not however, been able to make sufficient headway. In 1942, there were according to the Bhore Committee's report, 47,500 doctors, 7000 nurses, 750 health visitors, 5000 qualified midwives, 75 qualified pharma-

cists and 1000 qualified dentists in the whole of India. The authors of the same report stated "the number of medical personnel required to provide the people of India with a reasonably well organized medical and public health service, is :—1,85,000 doctors, 7,40,000 nurses, 74,000 health visitors, 1,00,000 qualified midwives, 62,000 qualified pharmacists and 92,000 qualified dentists. This target is expected to be reached in 1971". We are however, very sceptical about the fulfilment of this pious hope of the Bhore Committee, if we are to judge the matter from the progress made during the five years (1947–'52). The hospitals are all badly overcrowded and the annual increase of a few hundred beds (*e.g.* about 650 in 1952 for the whole of Madras State, will not mitigate the evil to any great extent.

In the matter of rural medical relief, none of the solutions so far suggested or put into effect have been successful. The Madras State's scheme of subsidising rural medical practitioners has not been the success it was expected to be. The establishment of primary units outlined by the Bhore Committee, is another solution. About a dozen such units were introduced in North Arcot, Malabar, Coimbatore and West Godavari Districts. They too have not proved successful. The causes of their failure are stated to be (1) a lack of correlation of the work of the primary units with that of the bigger institutions of the district and (2) the lack of suitable transport facilities. These are certainly remediable defects. The Union Ministry of Health has recently advocated the introduction of mobile dispensaries operating from district hospitals as the best means, under present conditions, of taking medical relief into the villages. Properly manned and conscientiously, worked, this scheme will prove more useful and practical than any hitherto tried but found wanting.

In the field of Public Health, and Preventive Medicine, many of the States have a well-organized public health department consisting of District and Municipal Health Officers, and Inspectors having suitable public health training and qualifications. The duties of these officers have been gradually increased so as to include nearly all items of public health maintenance in the district. The primary health centres visualized by the Bhore Committee, have not however been set up as yet; but we hope, that when the primary curative centres start working efficiently or when the mobile dispensaries have established themselves throughout the rural tracts of the country, the public health or preventive aspect of disease control will also automatically receive due consideration from the authorities to wit, by the addition of the requisite preventive staff to the mobile units.

The progress made in the control of epidemic diseases *e.g.*, typhoid, plague and cholera cannot be considered negligible. Preventive inoculations and other control measures have been promptly applied and epidemics more readily and quickly controlled than in the past; owing to paucity of sufficient qualified personnel,

still greater success could not be achieved.

The B.C.G. campaign for the investigation and control of tuberculosis, includes wherever possible mass X-ray of the population; the campaign has been progressing satisfactorily and is expected to produce abiding results of value in the years to come. The programme of malaria control organized and carried out also with the help and advice of WHO and UNICEF has produced excellent results and converted many hitherto uninhabitable tracts of the country into healthy agricultural areas which have since attracted many settlers.

Leprosy control has also proceeded apace and up-to-date methods of treatment for leprosy have been introduced and are yielding very good results. Venereal diseases are also being successfully investigated and tackled in many States. Water-supply and drainage schemes have also received more than the ordinary attention possible with the limited finances of the States. Long range programmes with priorities, have been drawn up and are being pushed through, as best as finances permit. But departmental procedures, *e.g.*, investigations, drawing up of plans and estimates for approval, revisions and reappropriations and final fresh plans etc., often retard progress and we feel that much greater impetus can be given by accelerating the execution of approved schemes.

Heredity

Mr. Dean Acheson, U. S. Secretary of State tells this one:—

The No. 1. pickpocket of New York was riding in the subway when he felt a hand in his wallet. He whirled about and came across a pretty female face which, it turned out, belonged to the No. 1 pickpocket of Chicago. The discovery of their respective identities provoked a lot of technical talk and she admitted that her technique had been bungling.

One thing led to another. They met frequently and finally they got married. Pretty soon, a child was expected. Of course, coming from such distinguished forbears, the child could not miss being the No. 1, pickpocket of America But alas, the baby was born with a deformity. Its right hand was tightly clasped, and nothing would make it open Obviously with such a handicap it could never hope to become a pickpocket. The best medical men and surgeons could do nothing.

In desperation, the parents took the child to a psychiatrist of repute. After trying all the conventional methods for relaxing such a tension, he decided to discard the scientific stuff and try something primitive. So he took a gold watch on the end of a gold chain and, holding it six inches or so over the little closed hand, swung it back and forth, gradually the hand began to open, bit by bit.

" You should have seen the amazed expression on the faces of the astonished parents. For in the hand that was till then closed, was an object — the midwife's wedding ring!!—(*J. H. C.*, quoted by *Reader's Digest*, July 1952).

The Value and Importance of RICE IN OUR DIET

Dr. T. D MUKHERJEE, M.B., D.P.H.,
Burdwan, West Bengal.

Of all cereals, rice is the most important and largely used as food. It is used by nearly three-fourths of the world's entire population. Rice is the staple diet of us, Indians. Nearly all of us except the comparatively small number of those in the North Western portion of India, use rice as their main food. Paddy grows luxuriantly in Bengal, Madras, Assam and also in Burma. The rice plant (Oryza sativa) belongs to the family of grasses. It grows well only where there is plenty of moisture in the soil. The seeds are first sewn in prepared wet soil. The seedlings are afterwards transplanted in different fields, where they grow and produce ears of corn which are harvested after maturing and then stored for use.

Rice differs in quality according to the process by which it is husked out of the paddy; when the paddy is simply sun-dried and husked we get raw rice. When paddy is first soaked in water, parboiled, then dried in the sun and afterwards husked, we get what is called par-boiled rice. Parboiling fixes the vitamins and prevents their loss in hulling. The food value differs with the process of husking. Paddy when stored should be protected from moisture and damp, otherwise it will become mouldy, sodden and unfit for use.

By proper storage, paddy gets seasoned and the rice is then believed to be more digestible. The storage of rice is more difficult. Rice should be stored in a dry place. It is best stored in gunnies or large mud pots. Dampness will make the rice mouldy and the moulds may produce toxins injurious to health.

Rice contains nearly 80% of starch 8 to 9% of proteins and will give about 3500 calories per kilogram. The small amount of protein it contains, is of value and helps in the nutrition of the body. Fats, vitamins and minerals are present only in small quantities. Rice is cheap, easily digested and is a rich source of carbohydrates. The starch it contains is present in a form easily assimilable after digestion. When rice is boiled it absorbs five times its weight of water. Rice is completely absorbed in the intestines as it contains practically no cellulose. Rice leaves very little residue in the intestine and is therefore, of great dietetic value in certain diseases. When boiled rice is well mashed by the hand with milk, water or butter milk and decanted or filtered and the filtrate (*conjee*) is given to a patient, it is readily absorbed and enters the blood stream. Quick nourishment is thus possible in weakened states of health. Parboiled rice *conjee* (gruel) is therefore, often prescribed as diet in diarrhœa, dysentery

etc., and in all lowered digestive conditions in fevers etc.

For better food value, the grain of rice should be entire. Milled raw rice is generally devoid of the embryo, which is broken off and often thrown away with the bran used as food for cattle. The greater portion of the essential vitamins is thus lost. Parboiled rice is superior to raw rice in this respect. Rice made out of newly harvested paddy requires a shorter time to cook than rice made from stored old paddy. New rice when cooked forms a pasty mass while old rice maintains a soft but separate granular consistency. New rice is not therefore, well mixed with the saliva while eating and causes more strain to the stomach which takes more time to pass it on to the intestines; digestion is completed here with extra strain. Assimilation thus becomes difficult and delayed, and diarrhoea often results.

Rice grains consist of (1) an endosperm; (2) an outer layer called the pericarp, which contains phosphorus and also vitamins; (3) a middle layer called the aleurone layer, which contains practically all of the fat and the greater part of the proteins present in the rice. The rest is all carbohydrate. In polished milled rice, the pericarp and most of the aleurone layer are lost. Polished rice thus depleted of its essential food factors should be avoided in our diets. Again in the process of cooking as practised in our households the gruel (*conjee*) is generally rejected thus causing a further loss of minerals and vitamins. Therefore, preparations like *Payas* and *Kitchuri* are more wholesome. *Payas* is prepared by boiling raw rice with milk and sugar; and the *Kitchuri* (Pongal) is prepared by boiling rice with dhal salt and adding pepper, cumin etc. In these two preparations of rice the *conjee* is not rejected. As rice contains only very small quantities of fat, protein and minerals, it is the custom to take it along with dhal, vegetables, ghee, curds etc., thus making the diet more wholesome, tasty and delicious and providing a better balanced diet. It should also be remembered that a mixture of foods is better absorbed than any single food by itself. If the total quantity of carbohydrate required to furnish the daily requirements of an active worker, is to be obtained from rice alone, he will have to eat a little over ½ seer (3 ollocks) of rice. This quantity is certainly too much to be taken without discomfort and risk of digestive upsets; the diet should therefore, be a mixed one.

Rice is nutritious, rice is cheap, rice is easily digested and if properly hand-pounded so as not to lose the pericarp and endosperm etc. and if the gruel (*conjee*) is not rejected (*i.e.* if the rice is cooked in a cooker over steam) it will be far more nutritious and health-giving than is commonly believed. It contains sufficient carbohydrate also some protein and a little fat. It contains also calcium, iron, phosphorus, vitamin B in quantities sufficient to maintain the mean basic requirements of the common man. Hand-pounded whole grains of rice contain some vitamin A also. Highly polished white rice is finer and more pleasing to the eyes and taste and is therefore,

preferred by some fastidious and wealthy persons who forget that it is practically devoid of the essential food factors, and that its food value is consequently low.

There are various preparations of rice used in Bengal such as, *Muri, Khoi, Murki, Chinra,* etc., all of which are rich in carbohydrates. The rice to be used for the preparation of *Muri (Arisi pori* of S. India) requires the paddy to be par-boiled twice and the husked rice is then baked over heated sand in a pan on the fire and the rice is obtained in puffed condition. When paddy is parched on heated sand *Khoi (Pori* of S. India) is obtained; a special variety of paddy is used for this purpose. *Khoi* is a reputed diet in the indigenous system of medicine of our country. When paddy is puffed in this way, the paddy on the heated sand jumps, the husk is removed and separated. This puffed rice when mixed with *gur* (jaggery) or syrup of sugar, *Murki* (*pori urundai*) is obtained, which is a kind of sweet. In olden days, *Murki* was a great and delicious item of confectionery and in the folk-tales of Bengal, the indigent Brahman was made comfortable by Durga and Shiba, when he got one *handi* which should yield an inexhaustible supply of *murki*. *Chinra* (*Aval* of S. India) is prepared from boiled paddy when the rice is flattened with a wooden pestle in a mortar. *Chinra* mixed with curds, gur and banana or scraped cocoanut forms a good lunch or even dinner to many in our country. Such flattened rice is used also in the preparation of various confectionery and cakes.

Rice cannot be considered to be food of inferior quality. People whose staple diet is rice, are often termed weak. But it is not true; for they are weak, neither in physique nor in intelligence. Rice is seldom eaten alone; for various side-dishes, the preparations of some of which are laborious and even expensive are often usually served along with rice. During feasts, rice is often served as *pulau* a preparation extremely rich, highly spiced, and very tasteful; It should however be eaten in small quantities, if one is not to get sick.

Rice-diet requires the addition of subsidiary foods to supply protein, fat and minerals to make it a balanced diet. The side-dishes *(curries)* used with rice, specially by Bengalees are very varied. They often therefore, cause dyspepsia for they cater to the taste only, and not to the requirements of a wholesome mixed balanced diet. Carbohydrate metabolism to be efficient, requires vitamin B in sufficient quantity. Vegetables taken in excess add to the bulk of the stools but are harmless, while rice taken in excess produces pot-bellies; and we all know how uncouth a pot-bellied man looks. Excess of carbohydrate food leads to the deposition of fat in the walls of the abdomen making the person pot-bellied. The primary action of carbohydrate food is to produce energy and heat. Fat also produces energy and heat. Thus carbohydrates play the same role as fats and so carbohydrates taken in excess favour the deposition of fat in the body, making the person unduly obese and stout.

Rice wine is a fermented preparation made from rice, which is used by a large number of people in Bengal as a nourishing food and beverage. [This will of course stop with total prohibition.—*Ed.* HEALTH].

Rice compares not unfavourably with wheat as regards its food value; but wheat contains less starch and more protein than rice. Wheat is also an important cereal food. Wheat bread is well absorbed by the intestines but requires larger quantities of the digestive juices. It is certainly a better plan to include wheat in one of our two principal daily meals as that will conduce to a better balancing of our diet. Some people however, do not like wheat and complain of its indigestibility. Habit plays a great part and so a wheat diet should not be forced on those who *will not* have it.

Rice must be regarded as one of the very nutritious articles of food. It yields a large proportion of carbohydrate, a smaller amount of protein and some mineral salts. It contains very little fat (and the Bengali saying is "घृत हीन ज्ञन्न कदन्न") and so some fat *must* be taken along with rice. Rice is not a perfect food, and so it should be used with a mixed diet. Rice with milk is a diet coveted by the Indians, and is a valuable food when used judiciously, being then far more nutritious and wholesome than is commonly believed.

Test of Will Power

Can you :

(1) Meet a friend who is suffering from a cold and refrain from suggesting your favourite remedy ?

(2) Buy new shoe laces before the old ones break ?

(3) Clean out the attic without stopping to read the old magazines and newspapers stored there ?

(4) Pass an excavation without stopping to watch the steam shovel at work ?

(5) Pass a '*Wet Paint*' sign without touching the newly painted area with the tip of your finger to see if it is dry ?

(6) Resist the impulse to push the lift button, even though half a dozen other people are already waiting for the lift ?

If you answer "yes" to more than five of these questions, somebody is a liar.—(*Akron Beacon Journal* : *R.D.*, July 1952).

Planning Parenthood

One enterprising mother solved the problem of getting her one year old child to swallow a pill. She put first the pill, then the baby, on the play-pen floor. True to the ways of small children he promptly popped the pill into his mouth and gulped it down.—(J. M. E in *R.D.*, July 1952).

A Dozen Don'ts for Good Health

T. S. RAGHAVAN,
R. B. Mandiram, Thalavady P.O., T. C. States.

1. Don't become a slave to coffee and/or tea. These will affect your nerves and ruin your digestion. Occasional use of weak tea is permissible. Tea is said to contain some vitamin B_2.

2. Don't take food until you feel naturally inclined and have an appetite for it. "A glutton digs his grave with his teeth" is a well known adage.

3. Do not suppress the urge to answer the calls of nature.

4. Don't be enamoured of the much advertised remedies for diseases. Many of them are spurious and have no real curative value. You simply waste your money and ruin your health thereby.

5. Avoid as far as possible frequenting hotels and eating houses.

6. Do not overdrug yourself; your system is too precious to be so treated. Also don't place undue reliance on money and medicine; there is a limit beyond which even the best of doctors or drugs cannot help.

7. Never indulge in incompatible foods, like milk and butter-milk, meat and curds, etc.

8. Observe restraint in your married life and follow the precepts and practices of your forefathers who were abstemious and very considerate in their social and marital relations. Also avoid too frequent self-shavings of the face if possible. Look at the Sikhs and Punjabees who keep marvellous good health with their beards on.

9. Do not frequent cinema shows. They will spoil your eyesight and tell on your health and some even on your character.

10. Never lend or borrow money as borrowing is sorrowing; also "borrowing dulls the edge of husbandry" and "lending loses both itself and friend," as Shakespeare said.

11. Don't harbour ill-feeling towards others, as it will poison your mind and affect your general health, particularly by drying the internal secretions.

12. Do not always keep worrying or anxious about your health. In fact the less you keep thinking of your system the greater will be the peace of mind.

Oral ordeal—Test for Normal Speech

When a person can recite the following without difficulty, his speech is normal :—

Are our oars here ?

Many a wit is not a whit wittier than Whittier.

The menu is not less important than the men you will meet.

His suit showed spots of suet and soot.

—(Dr. E. D. McD in *Reader's Digest*, July 1952).

HANSEN'S DISEASE (Leprosy)

(IRRATIONAL FEARS DISPELLED)

Rao Saheb T. N. S. RAGHAVACHARI,
Retired Public Health Bacteriologist,
St. Thomas Mount, Madras-16.

In the last issue of HEALTH for August 1952, the Editor had stated that the psychology of both the patient and the public towards Hansen's disease (let me request the readers to forget the name 'leprosy' as it has come to be associated with feelings of an unwarranted dread and repugnance) should undergo a radical change. It is the purpose of this article to place before the general public, including such professional men as might not have had opportunities of treating patients suffering from this malady, certain basic facts regarding modern investigations, researches and experience with specific potent drugs. These necessarily include information about the relative uninfective nature of the disease and the needless fears entertained by people at the very sight of the sufferers. I would earnestly request my readers to desist from calling these unfortunates as "lepers". The Union Health Minister RAJKUMARI AMRIT KAUR told the Council of States on the 29th of July last, that there were 12,00,000 patients suffering from Hansen's disease in India, (as reported by an Expert Committee appointed by the Government of India) and that there were only 47 institutions throughout India, run by the State Governments or local bodies, with a total bed accommodation of 4500 ! The institutions run by missions, and voluntary organizations would probably be dealing with a similar number. The Union Minister also stated that the incidence of leprosy was greatest in South and North Eastern India.

Now with this background before us, let us proceed to understand the problem in the light of accumulated knowledge and authoritative pronouncements by expert observers.

Hansen's disease (leprosy) is a chronic infective disease due to infection with a microbe, *M.leprae*. This bacterium flourishes chiefly in the skin and superficial (peripheral) nerve trunks. The disease is characterized by a wide range of lesions in the skin, mucous membranes and peripheral nerves. The mortality from this disease is very low and death is usually due to some co-existing infection, rather than to the primary disease.

Leprosy probably originated in India and Egypt and spread throughout the world. It is now most prevalent in tropical and subtropical countries. It is estimated that there are 3·5 million sufferers from leprosy in China, India and Africa. It has been eradicated from nearly all countries in the temperate zone where it is stated to have flourished at one time in the past. There were only

151 cases of diagnosed leprosy in 1951 in Great Britain.

Attempts to convey the infection from man to man by inoculating the causal organism have been unsuccessful. The method of spread is conjectural. It is believed that infection occurs through abrasions of the skin and mucous surfaces. Children are much more susceptible than adults to infection. Prolonged and intimate contact with a highly infective case is usually necessary for infection to result. Most adults are very resistant to this disease; those dealing with highly infective cases of the disease in leprosaria (hospitals for sufferers from leprosy) over prolonged periods never acquire it. (*See page 189 of* HEALTH *for August 1952*). In most cases the infection is acquired early in childhood; many authorities believe that if child infection could be prevented, leprosy would no longer maintain itself in a population. Impoverished, ignorant and careless living under insanitary and squalid conditions in a hot moist climate afford the optimum medium for the spread and maintenance of leprosy as an endemic disease. Under good conditions of life in clean surroundings in a temperate climate, the disease does not spread. This disease may therefore, be regarded as one of the *least contagious* of infective diseases.

On entering the skin the lepræ bacilli excite a local response, which usually limits their multiplication and dissemination. This response when vigorous as in healthy robust persons may be so vigorous that, the single lesion disappears after destroying the organisms, in a few weeks or months. In other cases, they persist and slowly ascend the branches of the peripheral nerves and may be disseminated in the blood stream also. Secondary nerve manifestations are soon visible in the forearms and forelegs (below the elbows and knees).

"The infection in persons whose tissues react vigorously to the invading organism takes the form of what is called *the "neural" type of leprosy*. This is not potentially infective to others as the bacilli are not discharged into the exterior. In patients with poor tissue reactions to the infection, the invading bacilli readily establish themselves into the skin, and multiply there unchecked. The infection diffuses and filters into the tissues. The blood and lymph circulating in the system carry the bacilli to various parts of the body. There is no tumour formation and the bacilli lie in and around the tissues and nerves. Nodules are often seen on the skin, and these tend to ulcerate and discharge the millions of bacilli contained in them. This is called the "*lepromatous type* (*ulcerating type*) and occurs in persons whose tissues do not react vigorously and specifically to the presence of the bacilli and eject them as soon as they enter. Nervous and lepromatous leprosy are the two extreme types and patients may manifest lesions intermediate between these two extremes. They are then said to suffer from a "*mixed type*" of the disease." (Dr. Adams).

The incubation period (that is the time taken for the invading bacilli to produce the disease)

varies greatly. As a rule it is about three years, but it may be as long as 15 to 20 years or even more. The onset is insidious (imperceptible) but on occasions it may be acute (severe and sudden). In the latter case it is usually of the *lepromatous* type. The first symptoms may be recurrent attacks of fever with rapidly-disappearing skin-eruptions, on any part of the body. In the more common *insidious type*, the first symptom is usually a persistent skin lesion on the face, trunk or legs and arms, generally on their outer (external) surface.

The lepromatous type.—The lesions appear as *macules* (spots) not sharply defined at first, but later on change in colour and texture and give the skin a shiny appearance. Later still, the skin may become slightly raised and swollen (œdematous) and corrugated over the bony prominences (like the elbow, shoulder, cheek bone, knee, ankle, and the forehead above the eyes), giving a leonine (lion-faced) appearance to the patient. The mucous membrane of the nose is essentially involved and may become ulcerated. When the disease spreads to the eyes, vision also may be lost.

The neural type.–Raised tubercular lesions may appear on any part of the body. The surface skin is usually scaly or pebbly in appearance, without feeling the sensation of touch, (anæsthetic) and not secreting sweat (perspiration) owing to damage to the superficial nerves supplying the skin. The tubercles may get inflamed and break down. There will be no fever or other constitutional disturbance. The secondary symptoms and signs of *neural* leprosy are the "leper-claw" hand, drop-wrist, drop-foot, muscular wasting and perforating ulcers. Loss of sensation of hair, of secretion of sweat and of the pigment on the skin may all occur. Facial muscles may get paralysed.

Treatment.—The first decision to be made is whether the patient should be segregated or not. Indiscriminate compulsory segregation has been frequently shown, all over the world, to be both unnecessary and undesirable. For cases of the *neural type* segregation is needless in the public interest, as such cases are absolutely noninfective to others: for cases of the lepromatous type segregation is unnecessary under good conditions of life. Fear of segregation makes the patients afraid of seeking medical advice while the condition is in its early stages, thus leading to concealment of the disease which continues to progress untreated. "**The first requisite in the domiciliary management of a case of leprosy** says Dr. Adams "**is the exclusion of children from contact with the patient. Apart from this the general management may be conducted along the lines of that of a case of tuberculosis.** Comfortable conditions of life, preferably in a rural setting with an occupational interest (some useful work to do) and exercise within the patients' capacity are all desirable".

The successful treatment of leprosy requires a thorough knowledge of the disease and continuous supervision. Unless it is therefore in expert hands, more harm than

good may result. Any of the drugs now used with success, if given in excessive dosage for the individual patient especially in the early stages of treatment may aggravate the condition, and cause "lepra-fever".

Chaulmoogra oil has been in use for centuries in the treatment of leprosy, by doctors of the allopathic (western) and indigenous (Ayurvedic etc.) systems of medicine. It was first given orally and by inunctions (rubbing over the affected parts) and later on, by injections into the skin. Some still consider this oil to be of great value. Pure oil with a little creosote is infiltrated into the lesions daily. This is a procedure which can be carried out in hospitals as it requires medical supervision. Good results have been reported with its use in India but the results in Africa are said to have been poor.

Very potent and efficacious drugs of the sulphone group have now been in use during the last few years and have given excellent results. "These have opened up a promising field of chemotherapy in leprosy. Properly given, they arrest the progress of lepromatous leprosy and in the majority of cases the lesions retrogress and ultimately disappear." If treatment is continued in sufficient doses for a long time (it may be a few years) even the bacilli vanish from the system. None of the new antibiotics like penicillin, streptomycin etc., have been found useful in this disease.

At present oral administration of certain sulphone preparations is in popular use in the out-patient departments of hospitals and in leprosy clinics. D.D.S. as it is called, is cheap and efficacious when taken in small doses by mouth, *under* medical supervision and control. "It is the ideal preparation for mass treatment in our country with an enormous leprosy problem and very limited financial resources", says Dr. Dharmendra, one of the leading Indian leprologists working in Calcutta. The total cost of treating a patient for a whole year is stated by another leprologist working at the Madras General Hospital, to be Rs. 5/- only.

It will be seen from the above, that the fear of contagion which people have in their minds is irrational and unwarranted, that the disease can now be well-controlled and cured and that the unfortunate sufferers should not be treated as outcastes or untouchables, but as persons who deserve every help, sympathy and encouragement from every member of society.

The Nutritive Value of Dates (Khajur)

Khajur (dates) is a very nutritious non-cereal food. It yields sufficient calories and contains carbohydrate, protein, iron, calcium, vitamin A, vitamin B2 (riboflavin) and nicotinic acid. It is superior to sugar and jaggery as regards its sweetness ; and in its nutritive value it compares very favourably with major cereals such as rice, wheat and joar (cholam). Children and adults are fond of dates which have the additional advantage of being eaten without need for any cooking. (From *Democracy*, 11-3-'52).

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WHAT IS PROPER EXERCISE FOR PEOPLE OVER FORTY?

PETER J. STEINCROHN, M.D.

ARE you over 40 and unwilling to slow down? Do you feel that you have to prove to yourself that you are not getting old by hitting a golf ball for 36 holes under a broiling sun or bending your ageing knees and twisting your complaining back in sitting-up exercises? How often have you reached for the hard balls in a Tennis match simply because you wanted to show the old man still had the stiff? By thus attempting to prove your fitness—or improve it—you may do yourself irreparable harm. You may even kill yourself in the process.

After a hard day's work the man or woman of forty longs for suppers, evening paper and complete relaxation. Yet hundreds of thousands believe it is necessary to exercise whether they want to or not. They have been told "Exercise is good for you", and they have accepted this dictum without question.

Most people exercise after they have put in a day's work. Actually experiments in the physiological laboratory have shown that if you are tired, exercise may overstrain the already fatigued muscles. And if you are doing "brain work" behind a desk most of the day, remember that the power of your muscles has been diminished. This is also true if you have been getting little sleep.

You may ask "Then what have I been given muscles for?" The answer is that muscles are for athletes—for the young. You can put it down as a rule that most men and women at 40 are not at that period of life called the *Age of youth*; rather they have entered the *Youth of old age*. You should realize that fact, when you are faced with the choice of substituting a sofa for sitting-up exercises, bridge for body-building by exercises, or tending your garden for Tennis.

Perhaps you say that you are different. You really enjoy a work-out. You stop exercising while you are still fresh, while you have that warm rosy glow. If so, you are an unusual human being, because it is safe to say that not one person in thousands stops in the middle of his Tennis or Golf game, simply because he feels top-notch. Instead he is likely to say "How about another set? or how about another round?" It requires discernment and will power to be able to stop before you have taken too large a dose.

There are so many substitutes for over-exertion: riding, walking, sailing, bowling, gardening, for an hour or so a day. All of these should satisfy the demands of the middle-aged muscles. And even these may be too much for some of you. Perhaps moderate walking is your limit.

Therefore remember that:—

1. When you are over 40, your heart is no longer perfect. Your muscles get more exercise daily in your work even if you are a desk-sitter, than you realize. If you are a woman, your work is never done. You use up enough energy doing your daily household work (chores); you need not find other ways to throw it away:

(2) Exercise will not protect you from disease; the chances are it will make you tired and thus more susceptible.

(3) Exercise will not take off weight. According to recent tests (*vide* HEALTH, *p. 163 for July 1952*). You would have to walk 66 miles at 4 miles per hour to take off one pound; or to do it more quickly run 43 miles at ten miles an hour. The only way to reduce weight is by dieting.

You can kill yourself by exercise with Tennis or Squash Courts; likewise you can do it more slowly by taking the zip out of life of being chronically tired because you persist in doing daily sitting-up exercises.

(5) If you are searching for fitness you may find it by keeping slender through not over-eating, getting enough sleep, not over-working, and having frequent vacations.-(From *Reader's Digest*).

Marriage Brief

I know a wise and witty woman who has been happily married for more than 40 years. Whenever one of her younger friends, about to be married comes to her for advice she replies "Well, my dear, I most sincerely hope you two will never have a difference of opinion. But if you *do* get into an argument, avoid the word "*always*".

How simple and yet how sane! Think of the many, many occasions in a marriage when what might have been nothing worse than a trifling spark of disagreement has been fanned into a conflagration because one of the two parties had let drop this kind of remark:

"You *always* come trailing through the drawing room in your wet shoes".

Or "you *always* leave the cap off the tooth paste".

Or "you *always* want to go home just when the party is being fun".

Or "you *always* manage to get into long political discussions whenever uncle is here". (Instances can be multiplied).

"Never say 'always'........." Of all the mottos for marriage I have heard, I think this one is the shortest and soundest. (Jan Struther in *Reader's Digest*, August 1952).

Pointers for Parents

In the little world in which children have their existence, there is nothing so finely perceived and so finely felt as injustice".—(*Reader's Digest* quoting Charles Dickens—in *Great Expectations*).

I once heard somebody say that you can't tell whether a parent has been a success or failure till you find out what happens to the grand children.—(R L. Stevenson quoted by *Reader's Digest*, August 1952).

The Role of Climate in the Treatment of TUBERCULOSIS OF LUNGS

Dr. JOHN G. DAVID, Medical Superintendent,
The David Memorial Tuberculosis Hospital,
Mehmadabad, Kaira Dist., Gujarat.

'CLIMATE' is the thought that springs uppermost in the minds of the patient and his relations, when tuberculosis is first diagnosed. Climate and hill stations appear to them to offer the only hope. In olden days, climate and hill slopes were considered essential for the successful treatment of tuberculosis and so tuberculosis institutions were usually built in such selected places. Hippocrates, the father of Medicine advised those suffering from tuberculosis (it was not then called by this name) to go to a far off hill-station and remain there eating good nourishing food and living in the open air.

With the progress made in the Science of Medicine, and in the art of medical treatment, doctors have realised that it is not the climate or the hill slopes alone that cure patients suffering from tuberculosis but that modern therapy combined with proper rest and good food, will bring about cures, even in their own homes on the plains.

Patients in crowded tenements in congested quarters and living under insanitary conditions cannot expect much improvement. Those who live in industrial areas with numerous dust and smoke particles constantly floating in the air around them are also not likely to derive benefit, even when proper treatment is given at home.

But the open country-air devoid of industrial hazards is quite satisfactory for the treatment of tuberculosis. Hill stations and elevated dry places will no doubt have an added psychological effect and will accelerate the progress of the cure.

Dr. R. Y. Keers, an eminent T. B. Specialist said that he knew of no special benefit which followed treatment at a high altitude, beyond the "psychological stimulus which may result from the scenic surroundings and sunshine."

From the economic point of view and from the point of view of the patient's relatives, it would be best if the patient with average income or moderate means can make arrangements for adequate rest and proper feeding and nursing in his own home which can be done more easily than in a strange place to which he is forced to go. It is quite true that, other things being equal, it would be preferable to place the patient under the best climatic conditions while he is undergoing treatment.

People with sufficient means who can afford to stay on for a sufficiently long time in a strange place, may go there for a change and rest, provided efficient medical and surgical treatment can also be had there. But if one relies entirely on the climate for the arrest or cure of his disease he cannot be considered to act wisely. He might improve slightly and feel fit to take up some work; or he may have to find work to keep him going, as he might have come to the end of his slender resources. He will soon relapse and make himself worse than ever before. So even from this point of view, it is best to stay at home taking adequate rest and the more important part of the treatment by staying in the open air of his own back or front yards or open terraces.

Statistics show that climate by itself exerts only one per cent benefit in early cases and a little more in the moderate and far advanced cases; so it is not worthwhile to run after this one per cent benefit, to the neglect of the requisite specific treatment.

Further, high altitudes and changes in climate may not suit some patients at all. Thus for instance, mountain resorts are definitely contraindicated for advanced cases and those complicated with emphysema. Cold and damp weather will prove very trying for long standing cases with severe bronchitis.

I have during the last 12 years found the results of treatment are practically the same irrespective of the climate and the altitudes in which I have worked. A dry climate, away from the smoke of cities is quite enough and there are many such beautiful places in India adjoining big towns and cities.

I have noted two very interesting observations with regard to patients undergoing treatment in hill stations:

(1) Even in a place like Mehmadabad in Gujarat which is only about 163 feet above mean sea-level the patients elect to cover themselves with blankets during the winter and remain in bed during most of the time without ever being asked to do so; they thus take the best treatment for tuberculosis—*viz.*, rest—unasked. In hill stations where the climate is very cold during most of the year, the patients have necessarily to take more rest, than if they stayed in the warm atmosphere of their own towns; this naturally plays its part in the treatment of tuberculosis of the lungs.

(2) Patients treated successfully in a hill station no doubt, develop greater resistance and put on more weight in that climate than in their own home climates. Many such patients on return to their homes however, begin to feel the change somewhat acutely; for they often suffer from loss of appetite, and a slight reduction in weight during the first few weeks. There is nothing unnatural in this: but they often become psychologically conscious and consequently get depressed over it and soon start losing more and more. They feel that their home climate does not suit them and that they cannot live there any longer. This depression gradually increases, particularly when there is none to wean them

effectively from this faddist-notion. If this is allowed to continue for a long time the patient who had got well, goes downhill and ultimately succumbs.

Modern medical scientists do not therefore, attach much importance to climate in the treatment of tuberculosis. They attach greater importance to the treatment of tuberculosis in the following order :—

(1) Rest, (2) diet, (3) open air ; and (4) medicine.

In conclusion, it is well to remember that tuberculosis of lungs takes a long time to cure. The patient will have to rest for a sufficiently long time and will need adequate financial backing to be able to do so without mental worry. It is therefore, not good ecconomy to spend large sums of money and energy in seeking after the one per cent benefit to be derived from a change of climate. He should rely on rest, food and fresh air and on proper medical aid near at hand. Cheap and fresh nourishing food, like milk, ghee and vegetables which can be easily had in his own place and the cheering home atmosphere aided by frequent but controlled visits from friends and relatives are major factors in the successful treatment of tuberculosis.

One of the Doctor's Best Weapons

Dr. FELIX CHARLES.

FOR 29 years I have been a practising physician. Not once during all these years I have admitted to any patient that his condition was hopeless. If this makes me a liar, I am proud to be one.

To keep the patients' attention focussed on recovery of good health, is the common procedure with doctors and is obviously based on sound psychological factors. The patient should always be encouraged to have peace of mind. You may feel that a doctor has no moral right to meet your apprehensions with reassuring double talk. You prefer and even insist on knowing the truth. All right. What is this great truth you yearn to know ? Perhaps the bodliy condition has progressed beyond any known aid. Is the patient to be told the brutal fact, to have the crushing weight of a death sentence added to the burden of ill health ? Such an action on the part of the doctor would really be murder. And to put it with equal bluntness, death is not always as close as it may seem to the doctor.

There is nothing so unpredictable as a heart case, for example. I was once called to see a 67 year-old woman whose heart was missing beats. A young (inexperienced) doctor had told her she was seriously ill. When I entered her room, she was taking her pulse. "When will my heart stop for ever doctor ?" she asked. Would you call my answer a lie ?I told her that her heart had served her well for 67 years and now it sometimes wanted to rest, just

as when walking in the park she might like to sit down on a bench. "By the way," I said "when were you last in the park? Go out now and take a little walk". Ten years later I saw the woman with her "bad heart" at a concert. On the other hand a friend of mine—a strong man but with an affected heart—went to his doctor for a regular check-up. The electrocardiogram was satisfactory, his heart was no worse than it has been for some years. Yet the next day the man was dead. The truth in these two cases as in thousands of others is, that the doctor or the patient does not decide the final issue; that is done by the unseen power—God Almighty. Out of 20 cases, which a doctor has reason to label "hopeless", at least one or two will recover. Faced by a seemingly hopeless case, the doctor must fight. If he does not, he is no doctor at all.

Fear can be the decisive factor in any illness, and the doctor who does not try to talk his patient out of fear, into a more easeful and comfortable state of mind is not using *one of his best weapons*. The opposite of fear is *hope*. Hope keeps the door wide open for the miracle. What matter if the miracle is five years more of life or five hours? Life is precious to all of us, and the doctor is sworn to preserve life to the last breath.

Several years ago my wife had an examination for possible cancer. Fortunately the condition proved not to be a growth. But we did not know that on the night before she entered the hospital. She said we never had lied to each other and she did not want us to have to play games now. She wanted me to promise her to tell the truth. There went through my memory another case, a disciplined strong character not unlike my wife, who proved to a colleague of mine that she must know the truth. Legal arrangements must be made for her children, she said, beyond the power of her estranged husband to disrupt. This other doctor broke a life-long rule. Her conditon was cancer, he told her, and it was inoperable. It was just pure hell for that frightened shaken woman until the day she died. "Never again", said the doctor, "will I tell a patient that death is near".

On the other hand, I remembered my own mother, whose inoperable condition I had concealed from her, so that she had months of peace and quiet. I had suceeded once by lying within my own home, I told myself, and I could do it again. I looked my wife calmly in the eyes and promised to tell her the truth.

Doctors, you see do not lie merely to patients; they lie to those nearest and dearest to them —because they know it is the kindest, the most humane thing to do. What about the members of the family? They have a right to the truth—provided they can bear up under the knowledge and *keep it from being reflected in their attitude towards the patient.* Always, the patient comes first.

Some may say it is a disservice to the public to air the doctor's point of view in this matter so frankly. But the result can be good if we all realize the wisdom of living an orderly life mentally, spiritually, and in our business arrangements. *Death may*

come to any of us at any time with or without prior knowldge. *It should not find us unprepared when it does come.*—(Condensed from *Mc Calls'* by *Reader's Digest*, for July 1952).

So You Cannot Sleep?

ROBERT WILSON

NO one seems able to explain precisely how sleep comes. There is, of course, a general relaxation of the muscles. Those controlling the limbs relax before those of the head, and the last to yield are the muscles that control the back.

Among the senses, the first to be lost is that of sight. The acuteness of the other senses, while lessened, is not entirely lost. Touch is the last of the senses to become submerged, and it is the first to revive, the slightest disturbance bringing with it the sensation of feeling again.

In normal sleep the respiration is slower, deeper, and more regular than during wakefulness. The heart is more regular, but acts with less force than when one is awake. Thus, the circulation is slowed down, which accounts for the hands and feet tending to become cold.

One of the most interesting discoveries about sleep is that the cessation of the working of the brain is more complete than any other part of the body, with the exception of the voluntary muscles. All the other organs of the body can carry on with a certain amount of work, such as those required for the disposal of a late meal. The kidneys and other glands may secrete toxins. It is, of course, bad practice to eat late food, for all the organs need rest; but if expediency demands it, though the internal organs have to work, it still allows some form of rest which is so essential to the brain. The brain is never at rest during waking periods. The nerve cells and reflexes are continually at work. Hence sleep is, first and foremost, a mental regeneration. The individual must have this in order to survive.

Depth of sleep is not constant, and varies for different persons. The first two hours of sleep are the deepest. In the important matter of the amount of sleep needed, it is not possible to make a hard and fast rule. But for adults, eight hours should be considered as desirable. Children require of course much more. For the first few weeks after birth; the infant should spend from twenty to twenty-two hours in sleep. For the next six months the time spent should be from sixteen to eighteen hours. At one year, fourteen or fifteen hours are needed. At four years of age the child needs eleven to twelve hours; and from six to ten, from ten to eleven hours. From the age of ten until sixteen years of age, nine hours should still be considered the minimum.

Loss of sleep for the child is really more detrimental than loss

of food. An unsatisfactory home environment, or lack of simple hygiene regarding sleep, is apt to produce children of such poor mental quality that they may even be considered as mental defectives. Restful sleep for the growing child, and for the adolescent is most important.

Loss of sleep may be due to several causes, some of which are well known, and others perhaps not suspected. A stuffy atmosphere in the bedroom or external noises may be the reason. It may be too little or too much bed-clothing, or an uncomfortable bed, such as a lumpy rib where one lies. It may result from heavy meals on retiring, tea, coffee, tobacco, or a change in one's routine, such as night work after working in the daytime. Excessive brain work or mental activity is another cause. It may be indigestion or constipation, producing toxæmia It may be due to blood pressure that is too high or too low. Hunger, pain, or even exhaustion may be the cause.

Mental disorders, even in a mild form, are very often the cause of insomnia. So also, are neurasthenia, melancholia, and over-anxiety. Lack of exercise in the fresh air may be the cause of a sleepless condition.

From a scrutiny of the preceding list it is obvious that treatment will have to be determined by the cause. The use of drugs should be discouraged, as it does not effect a true cure, and may lead to the drug habit. The modern phenobarbitones are notorious for this.

If there are irregularities in the life, these should be put right. Hygiene is important. A cold bath in the morning and a warm bath before going to bed at night will tone up the skin and induce rest. A warm drink may be helpful, but not if it leads to broken sleep later, through discomfort.

Worry is a very common cause, for sleep is never wooed easily by the troubled mind. The pity is that insomnia is part of a vicious circle, for the more one worries the less one sleeps, and the less one sleeps the less able one is to face one's problems.–(*Good Health*, London, May 1952).

Do You Know ?

The human heart beats, on the average, 70 times a minute, 100,800 times a day and 2,575,440,000 times in a life span of 70 years. The blood vessels have a combined length of about 100,000 miles, the capillaries have, together, a surface area of one acre. The heart pumps with each beat five ounces of blood into the circulation, which amounts to 22 pints a minute, 1,500 pints an hour, and 4,000 gallons a day. The heart generates sufficient energy within 2 hours, to lift a weight of 65 tons one foot in the air.

Each kidney has about 1,200,000 nephrons, each about 2 inches long, so that the combined length of all nephrons in an adult would amount to 75 miles. The length of individual capillaries in a glomerulus is about one inch; thus, the total of all capillaries in both kidneys would measure more than 37 miles. The entire filtering surface of all glomeruli exceeds twice the body surface.

In an adult there are approximately 300,000,000 alveoli in both lungs with an aggregate surface of 700 square feet. The adult absorbs more than 20 cubic feet of oxygen in 24 hours, and the blood releases more than 20 cubic feet of carbon dioxide within the same period.—(*Clin. Med.—Med. World*, 74 : 541, 1951, *quoted by I.J.M.S.*, Feb. '52).

"Healthy Surroundings Make Healthy People"

Dr. BROCK CHISHOLM,
Director-General of the World Health Organization (WHO).

"HEALTHY Surroundings make healthy people"—the theme suggested for the observance of World Health Day in 1952—points to a goal shared by all nations, and it shows where some of the problems lie which must be solved if efforts to improve health throughout the world are to succeed.

Despite the magnificent progress made by medical science, three out of every four men, women and children in the world still suffer from *diseases spread by unsafe water supplies insanitary excreta disposal, uncontrolled insects and rodents, inadequate protection of milk and other foods.* The responsibility for this tragic wastage of human life and energy rests with each of us, individually, in our three-fold capacity as members of the family and of the local community and as citizens of a shrunken world.

Each of us needs to realize that sanitation is, after all, a way of life. Whether we live in a "developed" or an "under-developed" country, it is *our duty* both to ourselves and to our neighbours *to practise certain elementary principles of hygiene which can be applied with little expense by individuals and families.* By keeping a clean home, a clean shop, a clean factory and a clean neighbourhood, we are meeting one of the first requirements for our own health and for a healthy community.

But we must go beyond this; we must also support fully the establishment and development of local and national programmes in community sanitation. They deserve our support because they aim at providing services designed to protect us against the many dangers that may threaten health and life if conditions in our physical environment are unsatisfactory.

Finally, as citizens of a world where all men have become neighbours, we must share with one another the things we learn about promoting health and preventing disease through the techniques available to the modern science of environmental sanitation. Such an exchange of knowledge among all countries is as justified on humanitarian grounds as it is essential for reasons of self-interest. The World Health Organisation has, from its beginning, given a high priority to international measures for raising standards of environmental sanitation. Along with its other activities, WHO will continue to support and encourage local, national and international efforts directed towards helping people to achieve a reasonable control of the physical features of their environment.

I earnestly hope that the observance of World Health Day this year will serve to make clear to men, women and children everywhere the value of healthy surroundings and their importance for the health of all peoples.—(From *Medical World*, 2-5-1952).

What to Eat in Summer Months

S. B. WHITEHEAD, D.Sc.

The problem of summer nutrition is best solved by appreciating how the body behaves when the temperature soars. Like all living things, the human body is responsive to temperature changes. As the temperature rises, the tendency is for the organic activity of the body to quicken. We know that the blood circulates a little faster, the endocrine glands are slightly more active, growth and regeneration go forward at a quicker pace in summer than in winter.

Vitamins and food-minerals are important the year round, but they are particularly valuable during the summer. Both groups of these food elements are needed to help the body to operate smoothly and to elaborate the glandular hormones that govern tissue growth, repair, and renewal. Fortunately, there is a wealth of vitamins available in the foods in season, especially in salads, fresh vegetables, fruits, milk, and dairy foods.

Food-minerals play a significant role in keeping us cool and energetic in summer. Since the body works at a faster tempo, it tends to produce more acid. It is this excess acidity that dulls the nerves, and makes us tired. By increasing the foods rich in the alkaline-forming minerals (calcium, potassium, iron magnesium), we offset acidity. Food like citrus fruit fresh berry fruits, leafy saladings, all fresh vegetables, milk, dairy foods, and molasses are very rich in these minerals and should be eaten liberally.

Many people make the mistake of cutting down their protein or body-building food in summer. Actually, the body's need for protein is a little greater in summer than in winter, since it is repairing and renewing its tissues more quickly. Probably the best protein food in summer is milk and its varied products, since they are so rich in calcium. Whole cereals, nuts, and leguminous seeds, such as peas and beans, contribute good vegetable protein. Eggs are of sound value. It must also be pointed out that leafy greens and salads are sources of complete protein, though the amount is not great; the contribution made by whole grain cereals is also substantial.

The foods the body can most usefully do without, during hot weather are the carbohydrate or energy foods. On warm days the body itself needs less heat or energy food to keep it functioning, and we ourselves can do the same amount of work in summer that we do in winter with less food calories. The three big calorie foods are fats, sugars, and starches, and these are the ones to cut, when the temperature goes high.

Fried foods, cakes, sweet biscuits, chocolate, cocoa, confectionery, and all rich, sweet foods, may be cut severely; for the less food the body has to digest and convert into heat and energy, the easier it can regulate itself to the temperature, and stay cool.

The body endeavours to maintain its internal temperature at about a steady 98 deg. Fahr. In hot weather, it invokes the aid of the skin, to open its pores and put its sweat glands into action in order to lose excess heat. In the process the body loses considerable quantities of moistore. Consequently, one of its biggest requirements is to replace this moisture either in moisture-containing foods like fruits and fresh vegetables or in extra drinks. It is quite legitimate to drink more in hot weather, but it is worthwhile giving some thought to the form that this drink takes. Ice-cold drinks do not cool the body. They only chill the stomach and the reaction is to generate more internal heat. The best drink is probably plain water, sipped slowly and warmed in the mouth before being swallowed. Alternatively, the juice of fruits or vegetables, milk, buttermilk, or whey may be taken.

When overheated, a hot drink helps to cool the body more than a cold one. Such a drink may cause perspiration immediately, but as this evaporates, the body is left feeling cooler. Much perspiration, however, is accompanied by the loss of salt, and for the extra drinks we take, it is as well to add a pinch of salt, preferably rock salt, to each. This works like magic in helping the body to keep cool and in healthful function.—(From *Good Health*, London, Aug. 1952).

Control Measures for Venereal Infections

WHO Committee's London Conference

The World Health Organisation Health Expert Committee on venereal infections met under the chairmanship of Dr. G.L.M. McElligott, V. D Adviser to the British Ministry of Health and Director of the Venereal Diseases Department of St. Mary's Hospital, London. The members of the committee were drawn from the W.H O. expert panel on venereal infections and treponematoses and included Dr. R. V. Rajam, V. D. specialist from Madras. Other countries represented were Indonesia, the U.S.A., the Lebanon, Yugoslavia and Brazil.

Satisfactory Progress

The work done in many parts of the world and particularly in countries of South-East Asia and the Americas—such as Thailand, Indonesia and Haiti—was reviewed by the committee which noted with special satisfaction the considerable progress which had been made Since the committee last met in 1949 over 5,000,000 people had been tested and over 2,000,000 treated in demonstration and mass control campaigns supported by W.H.O. and UNICEF. This represented, however, only a small initial attempt to solve the problem, and a long-range W.H.O. programme was considered necessary.

It was suggested that W.H.O. should continue to assist Governments by sending demonstration teams, advisers to help launch mass control campaigns and by giving further help with the training of expert personnel which the committee considered to be of the greatest importance in the survey and demonstration phases of venereal diseases control. The committee hoped that mass treatment campaigns would be consolidated and ultimately lead to greater development of rural health work.

The use of penicillin being the most common form of treatment for these infections, it was noted with satisfaction that the world supply of the drug was increasing. Progress is being made in the development of penicillin production plants in India and Chile and in the rehabilitation of plants in Austria and Yugoslavia.—(*Br. Informn. Service Bulletin*, 11-8-52).

* * *

Soviet Progress in Medical Science

The view that Russia has made considerable progress in medical education and medicine was expressed by Col. Jelal M. Shah, President, Pakistan Medcial Association and leader of the Pakistan Medical Delegation to the USSR.

Giving his impressions of the recent tour of the USSR Col. Shah said that he was impressed by the Russian doctors and nurses in carrying out their duty and their treatment of the patients. He said that there were about 80 to 90 medical colleges throughout Russia and the most interesting feature of those colleges was the overwhelming number of girl students. He said that in one hospital he found 40 lady doctors and two male doctors. He said that T.B was extinct in the country and there was hardly any case of epidemics. He said that private practice by the doctors was not allowed by the Russian Government. He said that Government was giving priority to doctors and teachers, who were paid adequately. On birth-control, he said, that the Government believe in encouraging increase in births.—(*Ind. Med. Jour.*, Aug. '52).

* * *

Hospital for industrial labour

Bombay city's seven lakh industrial population is to have an exclusive hospital shortly at an estimated cost of Rs. 40 lakhs. The 300-bed proposed hospital will be located in the heart of industrial Parel in North Bombay. The hospital, to be called the Gandhi Memorial Hospital, will be available for the treatment of industrial employees covered by the Employees' State Insurance Act.

The responsibility for the maintenance of the hospital will be entrusted to the Bombay Government and the employees State Insurance Corporation as part of the medical facilities to be provided under the Act. This will be the first hospital of its kind in India for exclusive use of industrial employees. The funds required for the hospital will be released by the Mahatma Gandhi Memorial Fund Trust. The proposed hospital will become a model institution with facilities for rehabilitation of injured industrial labour. —(*Ind. Med. Jour.*, Aug. 1952).

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Medical and Health Topics from Periodicals

Successful control and prevention of tuberculosis in Hungary.—Prior to 1939, no European country had so high a mortality from Tuberculosis as Hungary. It was endemic and ravaged mainly the agrarian proletariat on the Hungarian plain. Only 40% of the tuberculosis sufferers found room in hospitals and sanatoria. As a result of war the general condition of the population was greatly weakened and their resistance to tuberculosis lowered further.

After the Liberation, the Ministry of Social Welfare took up the elimination of tuberculosis as an endemic disease, one of its most urgent top-priority tasks. The planned economy scheme produced highly satisfactory results and enabled the government to conquer tuberculosis.

Today preventive measures against tuberculosis are effected by a nation-wide public-health system. In 1948–'49 the entire population of the country from infancy to 30 years of age was screened for tuberculosis. Some 4½ million people were checked and all those with negative skin reactions were given B.C.G inoculations. B.C.G. is already being produced in adequate quantities in Hungary. Industrial workers are examined before they are drafted to a new job and periodical control examinations are made. A "*Health file*" is kept for every employee, which follows him to every new place of employment. This ensures constant health control for the working people. School students are regularly checked at suitable intervals. In the creches and day nurseries, weekly examinations are made.

As a result of the Hungarian social welfare and public health policy, the tuberculosis death rate dropped from 14·2 per ten thousand in 1938 to 9·1 in 1950. This decrease is a continuous trend, made possible partly by continued extension of the fight against tuberculosis (establishment of new tuberculosis dispensaries and sanatoria etc.) and partly by the increase in the standard of living ensured by the five year plan, launched on 1-1-1950.—(*Hungarian News and Informn. Service*, London, July 1952).

●

Someone once asked Prof. Copeland of the Harvard University why he lived on the top floor of the tallest (sky-scraper) building in his dusty small old rooms.

"I shall always live here", he answered, "It is the only place in the entire University, where God alone is above me". Then after a pause "He's busy, but He's quiet" said the great Professor.—(*R.D.*).

●

"What's your greatest wish, Doctor," beamed a friend of the family "now that you have successfully passed for your degree?"

"To put 'Dr.' *before* my name, and Dr. *after* the names of other people" answered the ambitious young medico.

Rehearsing for the event!—Visiting a friend in the hospital I saw a car scream into the hospital's emergency entrance and slam to a stop. An excited young man jumped out, took the steps three at a time and sped through the revolving door.

"What's the trouble, sir?" asked the nurse.

"My wife's going to have baby".

"Well, bring her in, please".

"Oh! the baby is not due for another month; I am just timing myself to see how fast we can get here!".—(*A.T.S.*).

* * *

He who laughs last laughs best; but he soon gets a reputation for being dumb.

* * *

It's a queer world. Remain silent and others suspect that you are ignorant; talk and you remove all doubt about it.—(*R.D.*)

●

Sight and hearing aids.—One woman to another during a dramatic performance of *Hamlet*: "I wish they'd turn up the lights; I can't hear so well when it is dark."

"I know what you mean; I can't hear over the telephone without my spectacles on" said the other!—(*M.W.*)

●

How do you like these?

Rabies are Jewish priests, Christianity is the cure for them

In order to keep milk from turning sour, it should be kept in—the cow.

In most of the U S. murderers are put to death by elocution.

Natural immunity is catching a disease without the aid of a physician.

The atom is composed of electricians and prœteids

Mercury is the god of weather—for he is found in the thermometers.

●

To My Son

Do you know that your soul is of my soul such part
That you seem to be fibre and core of my heart?
None other can pain me as you, son, can do;
None other can please me or praise me as you,
Remember the World will be quick with its blame.
If shadow or stain ever darken your name.
Like mother, like son, is the saying so true
The world will judge largely of mother by you.
Be this then your task, if task it shall be,
To force this proud world to do homage to me.
Be sure it will say, when its verdict you've won,
She reaps as she sowed. This man is hér son.

—*M. J. Grafflin.*

●

Hitch your wagon to a star—*but* keep your feet on the ground.

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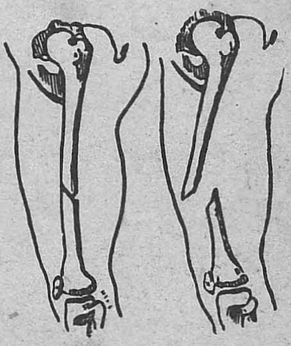
Burns,
Wounds,
Bites,
Snake-Bite,
Bruises,
Strains and Rupture of Muscles,
Poisoning,
Insensibility,
etc., etc.**

CHAPTER IV

FRACTURES

BONES are hard, but brittle, and break like glass, or porcelain, by outward force (blow, fall, jump, etc.). When a bone is broken, it is called a *fracture*. Fractures are caused either by (1) external violence, or (2) by muscular action. *The external violence* is said to be *direct* when the break is at the spot where the violence



is applied *e.g.*, a cart wheel passing over a leg, or *indirect* in which case the fracture occurs at a distance from the seat of injury, *e.g.*, a fall on the elbow sometimes causes

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